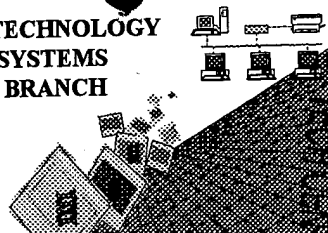


RAW SEQUENCE LISTING **ERROR REPORT**

BIOTECHNOLOGY
SYSTEMS
BRANCH



MAY 10 2002

RECEIVED

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/425,804B
Source: 1600
Date Processed by STIC: 5/1/02

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

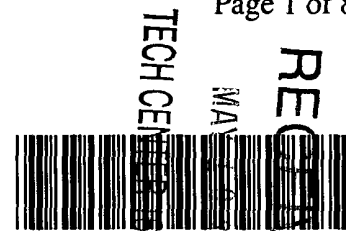
TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 3.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



Does Not Comply
Corrected Diskette Needed
See also p. 5 for errors

RAW SEQUENCE LISTING

DATE: 05/01/2002

PATENT APPLICATION: US/09/425,804B

TIME: 12:34:25

Input Set : A:\09425804_Ref No 122144-1001 SEQ ID LISTING.txt

Output Set: N:\CRF3\05012002\I425804B.raw

4 <110> APPLICANT: Gorenstein, David G.
5 Luxon, Bruce A.
6 Herzog, Norbert
7 Aronson, Judy
9 <120> TITLE OF INVENTION: Thio-Modified Aptamer Synthetic Methods and
10 Compositions
12 <130> FILE REFERENCE: 122144-001001
14 <140> CURRENT APPLICATION NUMBER: 09/425,804B
15 <141> CURRENT FILING DATE: 1999-10-25
17 <150> PRIOR APPLICATION NUMBER: 60/105,600
18 <151> PRIOR FILING DATE: 1998-10-26
20 <160> NUMBER OF SEQ ID NOS: 50
22 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

24 <210> SEQ ID NO: 1
25 <211> LENGTH: (66)
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <221> NAME/KEY: misc_feature
31 <222> LOCATION: (24)..(44)
32 <223> OTHER INFORMATION: n is A, T, G or C
34 <220> FEATURE:
35 <223> OTHER INFORMATION: Description of Artificial Sequence; aptamer
37 <400> SEQUENCE: 1

E--> 38 cagtgtctta gaggatccgt gacnnnnnn nnnnnnnnnn nnnnncgaag cttatcgatc (60) - line count is 59
E--> 39 cgagcgcg 66

399 <210> SEQ ID NO: 33
400 <211> LENGTH: 14
401 <212> TYPE: DNA
402 <213> ORGANISM: Artificial Sequence
404 <220> FEATURE:
405 <221> NAME/KEY: modified_base
406 <222> LOCATION: (2)
407 <223> OTHER INFORMATION: thymidine 3'-O-phosphorothioate
409 <220> FEATURE:
410 <221> NAME/KEY: modified_base
411 <222> LOCATION: (12)
412 <223> OTHER INFORMATION: thymidine 3'-O-phosphorothioate
414 <400> SEQUENCE: 33

RAW SEQUENCE LISTING

DATE: 05/01/2002

PATENT APPLICATION: US/09/425,804B

TIME: 12:34:25

Input Set : A:\09425804_Ref No 122144-1001 SEQ ID LISTING.txt

Output Set: N:\CRF3\05012002\I425804B.raw

E--> 415 gtgggaatctc ctgg 14 - line count is 15

435 <210> SEQ ID NO: 35

436 <211> LENGTH: 14

437 <212> TYPE: DNA

438 <213> ORGANISM: Artificial Sequence

440 <220> FEATURE:

441 <221> NAME/KEY: modified_base

W--> 442 <212> TYPE: (2) <222> - change to <222> - only needed once

E--> 442 <212> TYPE: (2) delete

W--> 443 <213> ORGANISM: thymidine 3'-O-phosphorothioate

445 <220> FEATURE:

446 <221> NAME/KEY: modified_base

447 <222> LOCATION: (7)

448 <223> OTHER INFORMATION: thymidine 3'-O-phosphorothioate

450 <220> FEATURE:

451 <221> NAME/KEY: modified_base

452 <222> LOCATION: (9)

453 <223> OTHER INFORMATION: thymidine 3'-O-phosphorothioate

455 <220> FEATURE:

456 <221> NAME/KEY: modified_base

457 <222> LOCATION: (12)

458 <223> OTHER INFORMATION: thymidine 3'-O-phosphorothioate

460 <400> SEQUENCE: 35

461 gtggaatctc ctgg 14

463 <210> SEQ ID NO: 36

464 <211> LENGTH: 14

465 <212> TYPE: DNA

466 <213> ORGANISM: Artificial Sequence

468 <220> FEATURE:

469 <221> NAME/KEY: modified_base

W--> 470 <212> TYPE: Compliment (2) - some error as to base <222>

E--> 470 <212> TYPE: Compliment (2)

W--> 471 <213> ORGANISM: phosphorothioate <223> - change to <223>

473 <220> FEATURE:

474 <221> NAME/KEY: modified_base

W--> 475 <212> TYPE: Compliment (12) - some <222>

E--> 475 <212> TYPE: Compliment (12)

W--> 476 <213> ORGANISM: phosphorothioate <223> - change to <223>

478 <220> FEATURE:

479 <223> OTHER INFORMATION: Description of Artificial Sequence: aptamer

481 <400> SEQUENCE: 36

482 ccaggagatt ccac 14

484 <210> SEQ ID NO: 37

485 <211> LENGTH: 14

486 <212> TYPE: DNA

487 <213> ORGANISM: Artificial Sequence

489 <220> FEATURE:

490 <221> NAME/KEY: modified_base

W--> 491 <212> TYPE: Compliment (5)

<222>

RAW SEQUENCE LISTING

DATE: 05/01/2002

PATENT APPLICATION: US/09/425,804B

TIME: 12:34:25

Input Set : A:\09425804_Ref No 122144-1001 SEQ ID LISTING.txt

Output Set: N:\CRF3\05012002\I425804B.raw

```

E--> 491 <212> TYPE: Compliment (5) delete
W--> 492 <213> ORGANISM: phosphorothioate → <223>
494 <220> FEATURE:
495 <221> NAME/KEY: modified_base
W--> 496 <212> TYPE: Compliment (7) → <222>
E--> 496 <212> TYPE: Compliment (7) delete
W--> 497 <213> ORGANISM: phosphorothioate → <223>
499 <220> FEATURE:
500 <223> OTHER INFORMATION: Description of Artificial Sequence: aptamer
502 <400> SEQUENCE: 37
503 ccaggagatt ccac 14
562 <210> SEQ ID NO: 40
563 <211> LENGTH: 14
564 <212> TYPE: DNA
565 <213> ORGANISM: Artificial Sequence
567 <220> FEATURE:
568 <221> NAME/KEY: modified_base
569 <222> LOCATION: (9)..(10)
570 <223> OTHER INFORMATION: phosphorothioate
572 <220> FEATURE:
573 <221> NAME/KEY: modified_base
574 <222> LOCATION: Complement (5)
575 <223> OTHER INFORMATION: phosphorothioate
577 <220> FEATURE:
578 <221> NAME/KEY: modified_base
579 <222> LOCATION: Complement (7)
580 <223> OTHER INFORMATION: phosphorothioate
582 <220> FEATURE:
583 <223> OTHER INFORMATION: Description of Artificial Sequence: aptamer
E--> 585 <400> SEQUENCE: 38
586 ccaggagatt ccac 14
E--> 588 <210> SEQ ID NO: 40 → Skipped sequence, see p.5
589 <211> LENGTH: 14
590 <212> TYPE: DNA
591 <213> ORGANISM: Artificial Sequence
593 <220> FEATURE:
594 <221> NAME/KEY: modified_base
595 <222> LOCATION: (9)..(10)
596 <223> OTHER INFORMATION: phosphorothioate
598 <220> FEATURE:
599 <221> NAME/KEY: modified_base
600 <222> LOCATION: Complement (2)
601 <223> OTHER INFORMATION: phosphorothioate
603 <220> FEATURE:
604 <221> NAME/KEY: modified_base
605 <222> LOCATION: Complement (5)
606 <223> OTHER INFORMATION: phosphorothioate
608 <220> FEATURE:
609 <221> NAME/KEY: modified_base

```

RAW SEQUENCE LISTING

DATE: 05/01/2002

PATENT APPLICATION: US/09/425,804B

TIME: 12:34:25

Input Set : A:\09425804_Ref No 122144-1001 SEQ ID LISTING.txt

Output Set: N:\CRF3\05012002\I425804B.raw

```

610 <222> LOCATION: Complement (7)
611 <223> OTHER INFORMATION: phosphorothioate
613 <220> FEATURE:
614 <221> NAME/KEY: modified_base
615 <222> LOCATION: Complement (12)
616 <223> OTHER INFORMATION: phosphorothioate
618 <220> FEATURE:
619 <223> OTHER INFORMATION: Description of Artificial Sequence: aptamer
E--> 621 <400> SEQUENCE: (41) - no. differs from Seq. ID No.
622 ccaggagatt ccac 14
E--> 624 <210> SEQ ID NO: (42) - should be 41
635 <210> SEQ ID NO: 43
636 <211> LENGTH: 43
637 <212> TYPE: DNA
638 <213> ORGANISM: Artificial Sequence
640 <220> FEATURE:
641 <221> NAME/KEY: modified_base
W--> 642 (212) TYPE: (9) -> <222>
E--> 642 (212) TYPE: (9) delete
W--> 643 (213) ORGANISM: phosphorodithioate -> <223>
645 <220> FEATURE:
646 <221> NAME/KEY: modified_base
W--> 647 (212) TYPE: (20) -> <222>
E--> 647 (212) TYPE: (20) delete
W--> 648 (213) ORGANISM: phosphorodithioate
650 <220> FEATURE: -> <223>
651 <221> NAME/KEY: modified_base
W--> 652 (212) TYPE: (9) -> <222>
E--> 652 (212) TYPE: (9)
W--> 653 (213) ORGANISM: phosphate ester -> <223>
655 <220> FEATURE:
656 <221> NAME/KEY: modified_base
W--> 657 (212) TYPE: (20) -> <222>
E--> 657 (212) TYPE: (20) delete
W--> 658 (213) ORGANISM: phosphate ester -> <223>
W--> 660 <223> OTHER INFORMATION:
660 <400> SEQUENCE: 43
E--> 661 ccaggagatt ccacttttgt ggaatctcct gga 43

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/425,804B

DATE: 05/01/2002
TIME: 12:34:26

Input Set : A:\09425804_Ref No 122144-1001 SEQ ID LISTING.txt
Output Set: N:\CRF3\05012002\I425804B.raw

Skipped Sequences(NEW RULES):

Sequence(s) missing. If intentional, please use the following format for each skipped sequence.

<210> sequence id number

<400> sequence id number

000

Seq#:41

Use of <220> Feature(NEW RULES):

Sequence(s) are missing the <220> Feature and associated headings.

Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial Sequence" or "Unknown". Please explain source of genetic material in <220> to <223> section (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp.29631-32) (Sec.1.823 of new Rules)

Seq#:2,14,25,43

VERIFICATION SUMMARY

DATE: 05/01/2002

PATENT APPLICATION: US/09/425,804B

TIME: 12:34:26

Input Set : A:\09425804_Ref No 122144-1001 SEQ ID LISTING.txt

Output Set: N:\CRF3\05012002\I425804B.raw

L:38 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:38 M:254 E: No. of Bases conflict, LENGTH:Input:60 Counted:59 SEQ:1
M:254 Repeated in SeqNo=1
L:39 M:252 E: No. of Seq. differs, <211> LENGTH:Input:66 Found:65 SEQ:1
L:46 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:48 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:159 M:282 W: Numeric Field Identifier Missing, <212> is required.
L:176 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14
L:178 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:178 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:298 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:298 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:357 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:415 M:254 E: No. of Bases conflict, LENGTH:Input:14 Counted:15 SEQ:33
L:415 M:252 E: No. of Seq. differs, <211> LENGTH:Input:14 Found:15 SEQ:33
L:442 M:280 W: Numeric Identifier already exists, Type not replaced.
L:442 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:443 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:470 M:280 W: Numeric Identifier already exists, Type not replaced.
L:470 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:471 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:475 M:280 W: Numeric Identifier already exists, Type not replaced.
L:475 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:476 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:491 M:280 W: Numeric Identifier already exists, Type not replaced.
L:491 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:492 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:496 M:280 W: Numeric Identifier already exists, Type not replaced.
L:496 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:497 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:585 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:40 differs:38
L:588 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQ ID NO:40
L:621 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:40 differs:41
L:624 M:214 E: (33) Seq.# missing, SEQ ID NO:41
L:642 M:280 W: Numeric Identifier already exists, Type not replaced.
L:642 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:643 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:647 M:280 W: Numeric Identifier already exists, Type not replaced.
L:647 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:648 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:652 M:280 W: Numeric Identifier already exists, Type not replaced.
L:652 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:653 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:657 M:280 W: Numeric Identifier already exists, Type not replaced.
L:657 M:310 E: (3) Wrong or Missing Sequence Type, TYPE:
L:658 M:280 W: Numeric Identifier already exists, Organism not replaced.

VERIFICATION SUMMARY

DATE: 05/01/2002

PATENT APPLICATION: US/09/425,804B

TIME: 12:34:26

Input Set : A:\09425804_Ref No 122144-1001 SEQ ID LISTING.txt

Output Set: N:\CRF3\05012002\I425804B.raw

L:660 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:

L:661 M:254 E: No. of Bases conflict, LENGTH:Input:43 Counted:33 SEQ:43

L:661 M:252 E: No. of Seq. differs, <211> LENGTH:Input:43 Found:33 SEQ:43